A fractal approach to industry sector analysis

Fig. 1 Sector Analysis
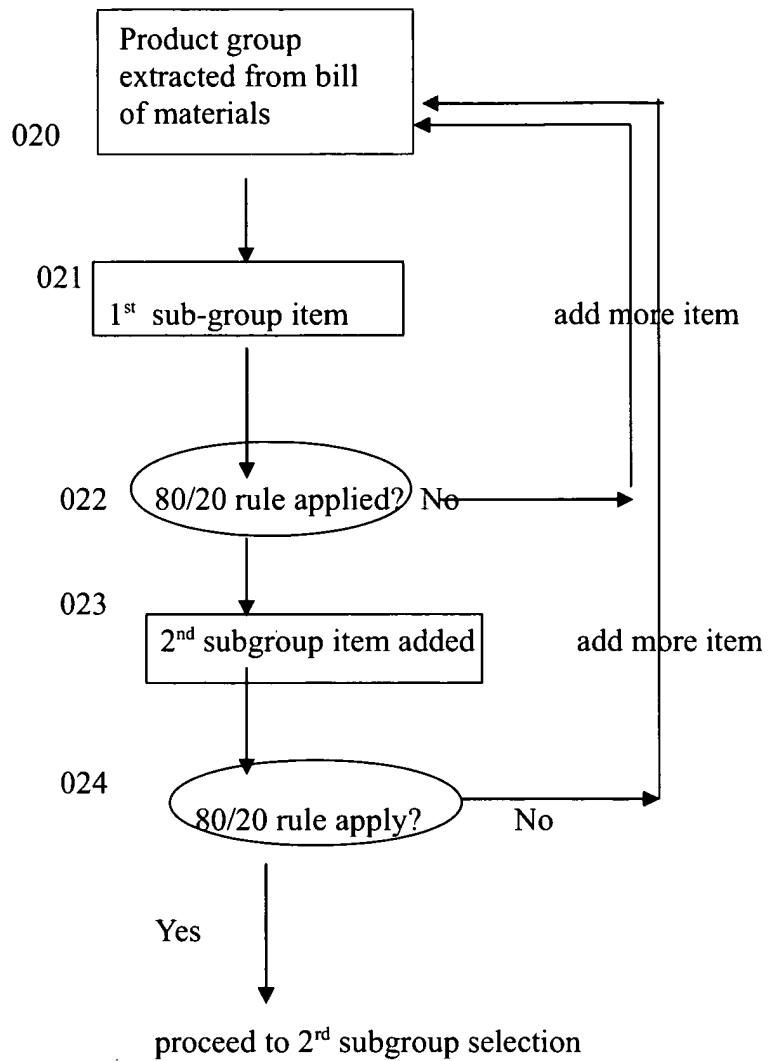
Fig. 2- Application of Pareto's Distribution Law
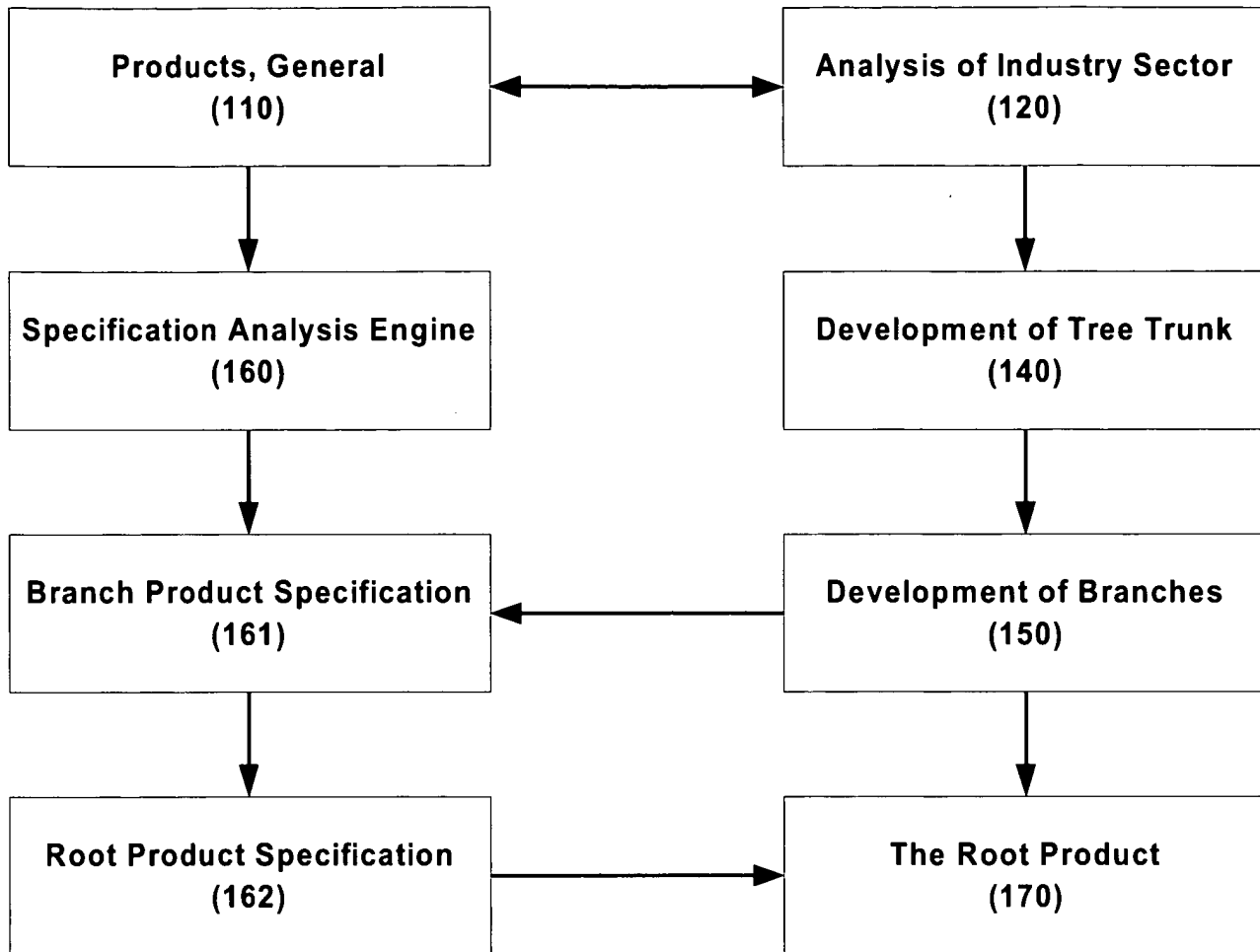
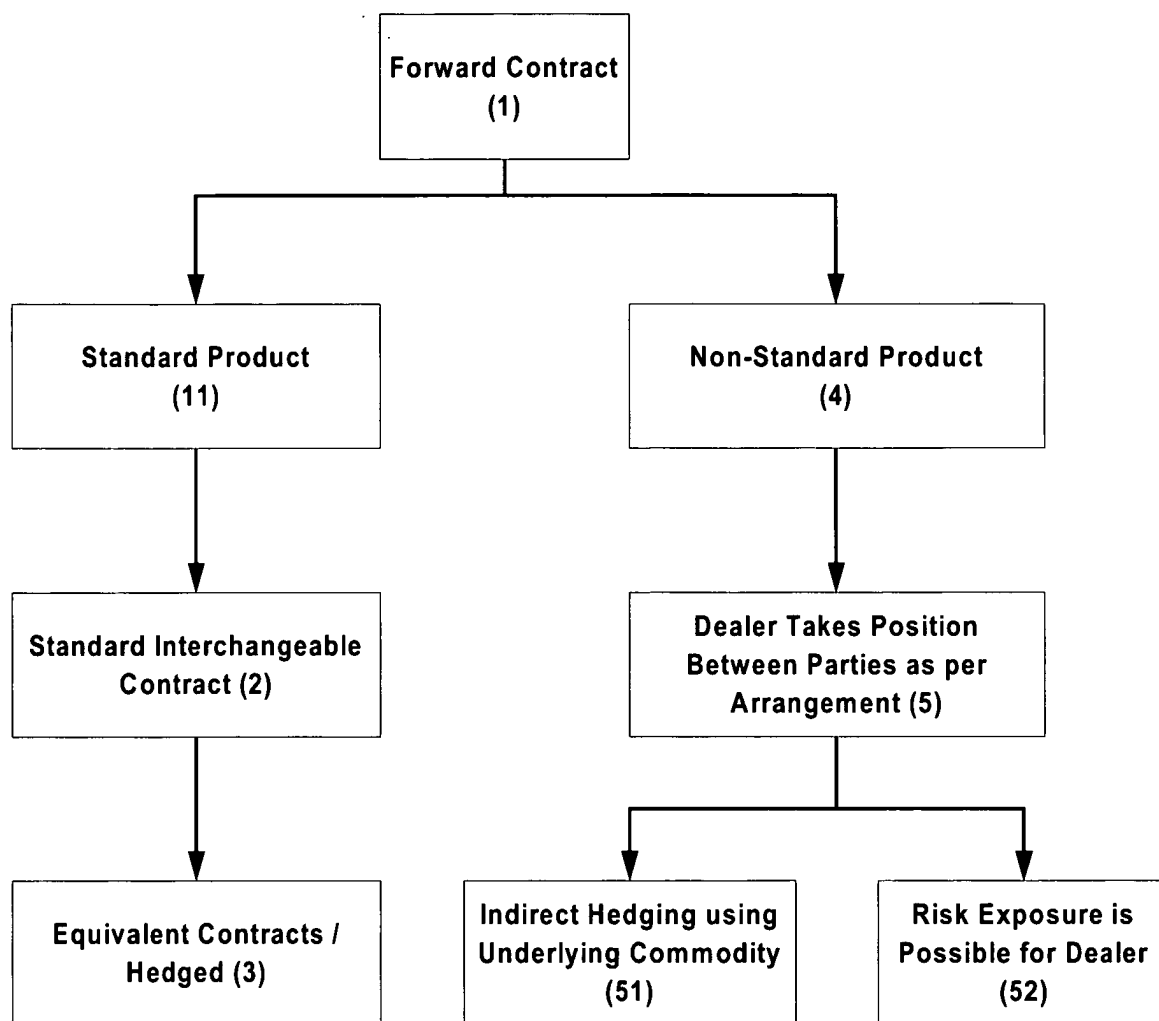| Products, General (110)	←→	Analysis of Industry Sector (120)
↓		↓
Specification Analysis Engine (160)		Development of Tree Trunk (140)
↓		↓
Branch Product Specification (161)	←	Development of Branches (150)
↓		↓
Root Product Specification (162)	→	The Root Product (170)

Fig 3: Root Extraction Process 300

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                        ┌─────────────────────┐
                        │  Forward Contract   │
                        │        (1)          │
                        └─────────────────────┘
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Forward Contract (1)

Standard Product (11)	Non-Standard Product (4)

Standard Interchangeable Contract (2)	Dealer Takes Position Between Parties as per Arrangement (5)

Equivalent Contracts / Hedged (3)	Indirect Hedging using Underlying Commodity (51)	Risk Exposure is Possible for Dealer (52)

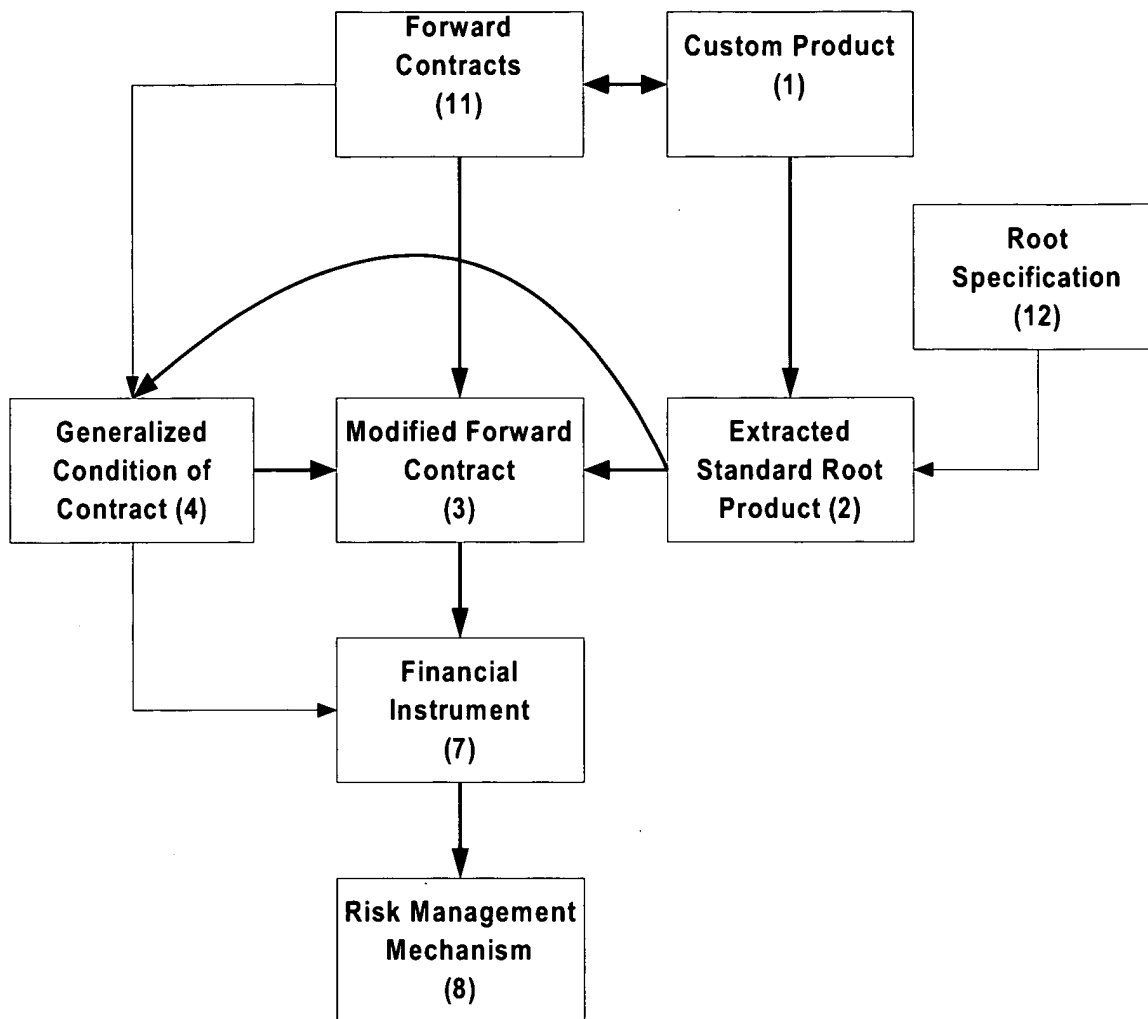**Fig 4: Existing Forwards Platform 100**

Fig 5: New Platform 200

Item 1	Product as defined	a) Name (any) b) Description (any) c) Unit (no, pounds, ton, gallon, ounce) d) lot size(10,100,200, 500, 1000,10000,20000, 50000) e) code (any)
Item 2	Delivery Frequency	a) date: 30 day, 60 day, 90 day b) date: calendar months c) notice dates: T-x1, T-x2
Item 3	Trading Rules	a) marketplace (hybrid, futures, spot) b) all months c) hours (8am-2pm EST), (9am-3pm PST), (11am-5pm GMT), (9am-3pm pacific) d) week begins (Sunday, Monday) e) week ends (Friday)
Item-4	Pricing Mechanism	a) minimum fluctuation (1/100. 1/20, 1/10 of currency) b) daily limit (percentage of nominal contract value ;5%, 6%,7%,8%,9%,10%), c) currency (usd, usd & euro, usd & JPY, usd & local currency)
Item-5	Financial Clearing	via Fiduciary account residing at commercial bank
Item-6	Settlement Procedure	a) cash offset following financial clearing b) physical delivery made against cash payment

Fig.6 Flexible Semi-Standard Contract
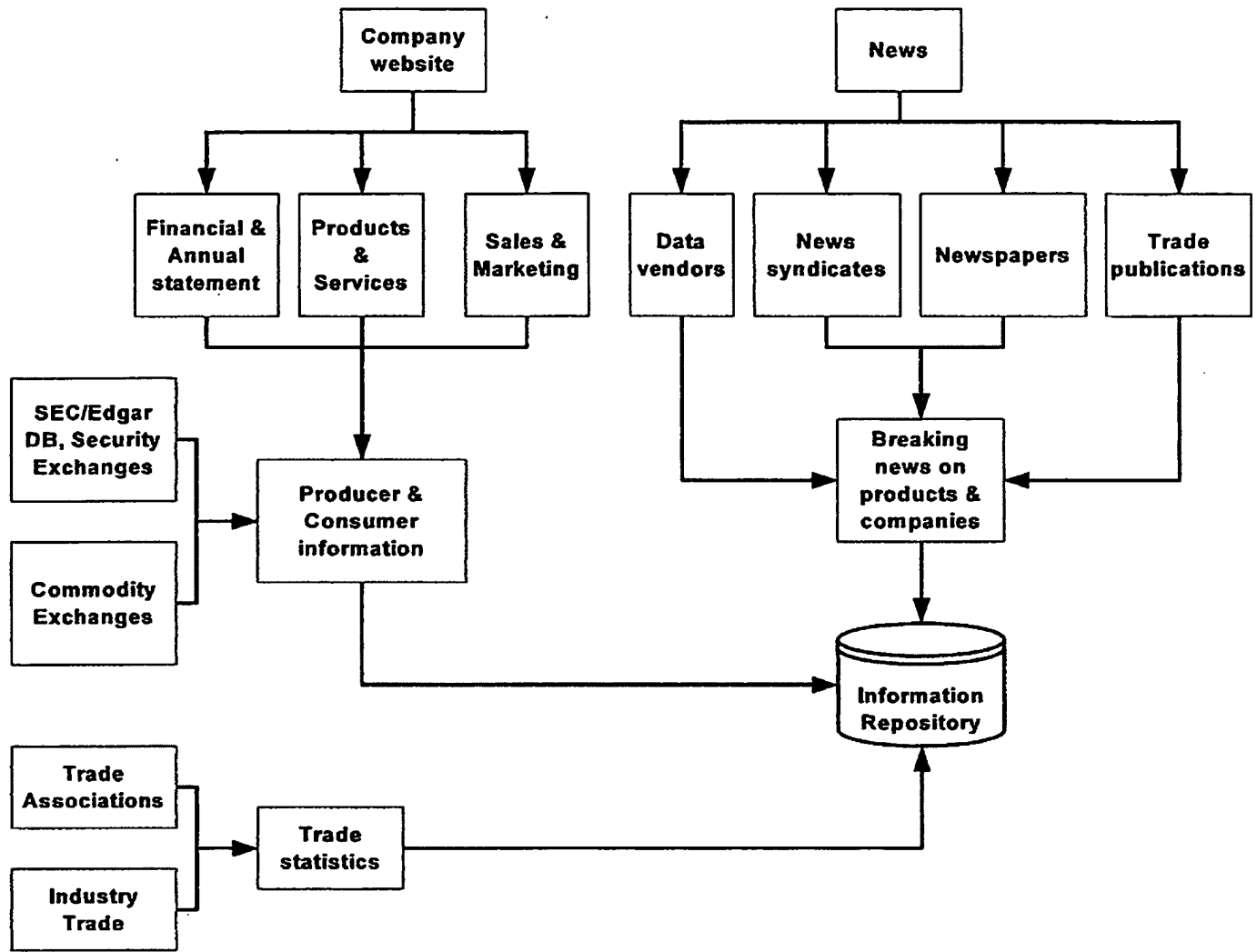
Public Data Collection

Fig 7 Marketing information: A collection of market data as well as relevant news

a) News providing supply data:

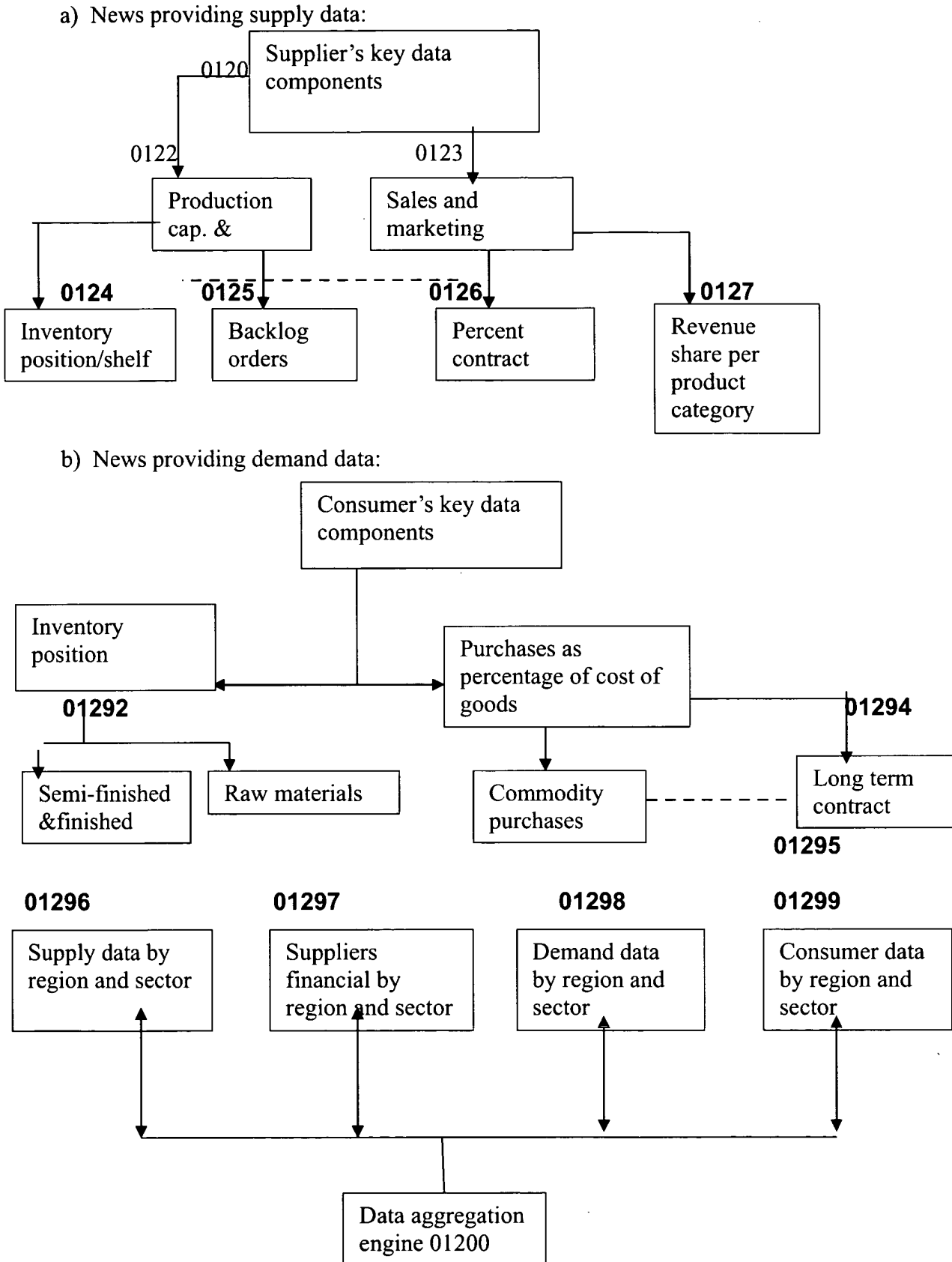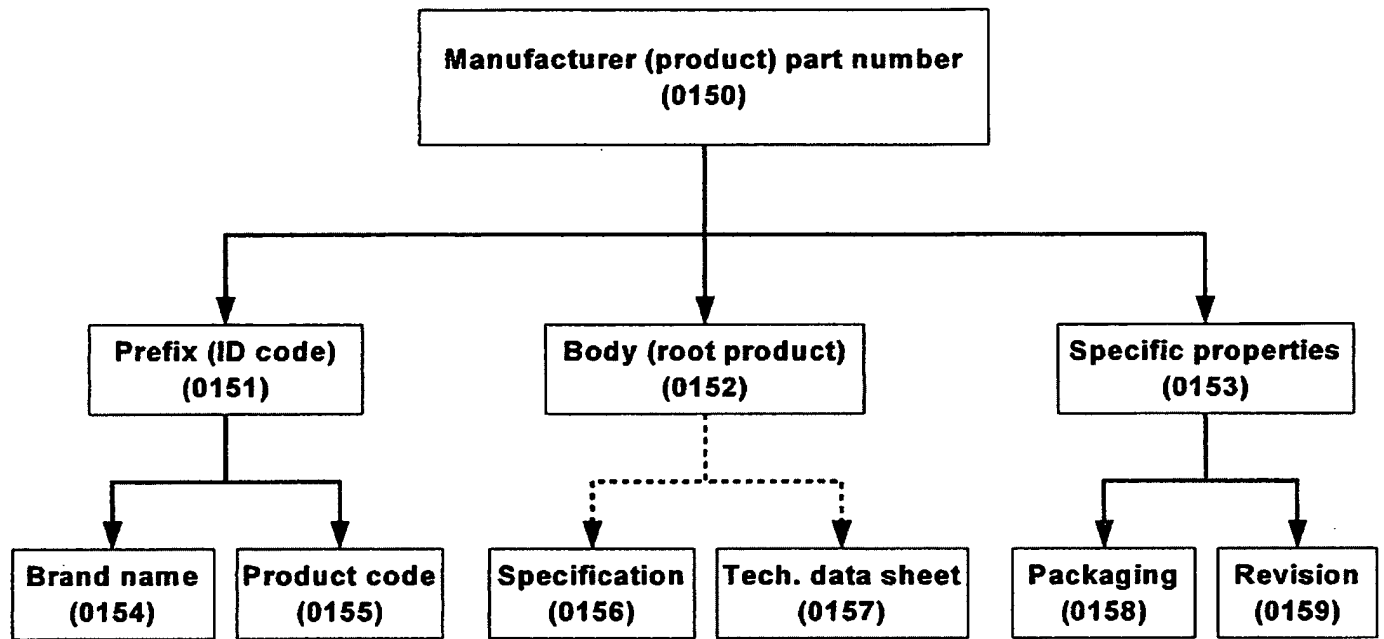b) News providing demand data:

Fig 8- Supply & Demand data are collected in a database

Breakdown of part number - industry standard

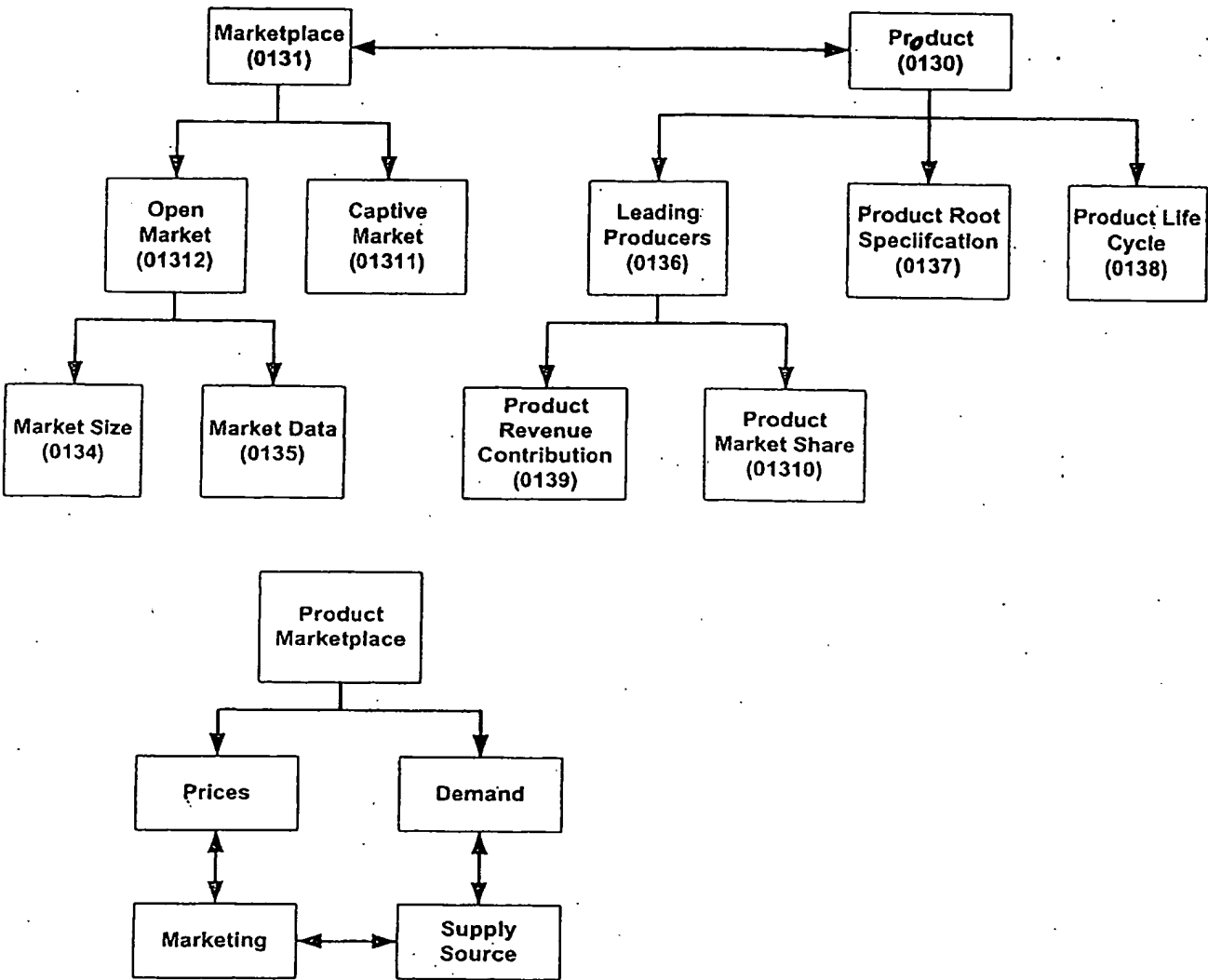Fig. 9 Manufacturer part number: A guide to technical specification

Fig. 10 Combining technical and marketing data

Information	Primary source	Secondary source	Fee-based services
Product line	Company's website	Distributors website	
Key products	Company's financial	suppliers websites	Market researchers
Product market share	Company's report	Trade associations	Market researchers
Product prices	Open market	Supplier website	Daily survey

TABLE 11- Sources of Data collection

Industry sector	public companies	Market size in 1000	Sub-Sector targeted	Average growth rate	Average Volatility
Electronics	800	450,000,000	Semicon	15%	50%
Chemical	300	350,000,000	plastics	8%	10%
Electrical	56	320,000,000	wholesale	4%	15%

Table 12- Example of aggregate marketing data

company	Last quarter/ projected sales	Global market share, 2001	Product 1	Product 2	Cost of sales	International sales
Micron	$700 million	18.00%	memories	-	80%	400,000
Dell	$8.5 billion	<10%	memories	interconnect	35%	2,000,000

Table. 13- Example of producer and consumer of same product

1. FOR EACH SECTOR

Industry	Public companies	Market size	Average growth rate	Average volatility

2. FOR EACH PRODUCER/CONSUMER ENTITY

Entity	Last reported revenue	Last reported cost of sales	% commodity related market share

Entity	Commodity I, % of revenue	Commodity 2, % of revenue	Commodity 3, % of revenue

Entity	Currency 1, % of transaction	Currency 2, % of transaction	Currency 3, % of transaction

3. FOR EACH PRODUCT

Product description	Product symbol	Spot closing in USD	Spot closing in Jyen	Spot closing in Euro

Product description	Product symbol	30 day forward closing price	90 day forward closing price

Product description	Product symbol	Total available market	Relative market strength

Tables 14- The Database